

Project 2-1: Student Registration

Create a program that allows a student to complete a registration form and displays a completion message that includes the user's full name and a temporary password.

Console

```
Registration Form

First name:      Eric
Last name:       Idle
Birth year:      1934

Welcome Eric Idle!
Your registration is complete.
Your temporary password is: Eric*1934
```

Specifications

- The user's full name consists of the user's first name, a space, and the user's last name.
- The temporary password consists of the user's first name, an asterisk (*), and the user's birth year.
- Assume the user will enter valid data.

Project 2-2: Pay Check Calculator

Create a program that calculates a user's weekly gross and take-home pay.

Console

```
Pay Check Calculator

Hours Worked:    35
Hourly Pay Rate: 14.50

Gross Pay:       507.5
Tax Rate:        18%
Tax Amount:      91.35
Take Home Pay:   416.15
```

Specifications

- The formula for calculating gross pay is:
`gross pay = hours worked * hourly rate`
- The formula for calculating tax amount is:
`tax amount = gross pay * (tax rate / 100)`
- The formula for calculating take home pay is:
`take home pay = gross pay - tax amount`
- The tax rate should be 18%, but the program should store the tax rate in a variable so that you can easily change the tax rate later, just by changing the value that's stored in the variable.
- The program should accept decimal entries like 35.5 and 14.25.
- Assume the user will enter valid data.
- The program should round the results to a maximum of two decimal places.

Project 2-3: Tip Calculator

Create a program that calculates the tip and total for a meal at a restaurant.

Console

```
Tip Calculator

Cost of meal: 52.31
Tip percent: 20

Tip amount: 10.46
Total amount: 62.77
```

Specifications

- The formula for calculating the tip amount is:
$$\text{tip} = \text{cost of meal} * (\text{tip percent} / 100)$$
- The program should accept decimal entries like 52.31 and 15.5.
- Assume the user will enter valid data.
- The program should round the results to a maximum of two decimal places.

Project 2-4: Price Comparison

Create a program that compares the unit prices for two sizes of laundry detergent sold at a grocery store.

Console

```
Price Comparison

Price of 64 oz size: 5.99
Price of 32 oz size: 3.50

Price per oz (64 oz): 0.09
Price per oz (32 oz): 0.11
```

Specifications

- The formula for calculating price per ounce is:
`price per ounce = price / ounces`
- Assume the user will enter valid data.
- The program should round the results to a maximum of two decimal places.

Project 2-5: Travel Time Calculator

Create a program that calculates the estimated hours and minutes for a trip.

Console

```
Travel Time Calculator

Enter miles: 200
Enter miles per hour: 65

Estimated travel time
Hours: 3
Minutes: 5
```

Specifications

- The program should only accept integer entries like 200 and 65.
- Assume that the user will enter valid data.

Hint

- Use integers with the integer division and modulus operators to get hours and minutes.